California Air Resources Board, Bart E. Croes, P.E., Chief
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1/32.01 The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see http://www.arb.ca.gov/docs/energytips1.htm.

California Energy Commission, Robert L. Therkelsen, Executive Director
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MAY-25-2004 18:20 CA.ENERGY COMMISSION 916 654 4420 P.02/05

STATE OF CALIFORNIA - THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

May 25, 2004

Thomas Grim, Document Manager
US Department of Energy/
National Nuclear Security Administration
Livermore Site Office, L-293
7000 East Avenue
Livermore, CXA 94550-9234

Re: Comments on the US. Department of Energy's the Site-wide EIS for Continued Operation of the Lawrence Livermore National Laboratory (LLNL) and Supplemental Stockpile Stewardship and Management Programmatic EIS (DOE-EIS-0348 and DOE/EIS-0236-S3), February 2004.

Dear Mr. Grim:

The California Energy Commission coordinates an interagency working group of state agencies, called the California Nuclear Transport Working Group, which has been working cooperatively with other western states through the Western Governors' Association and with the U.S. Department of Energy (DOE) over the past decade to develop plans and emergency response procedures for large-scale DOE nuclear waste shipping campaigns. The following comments were developed in light of this extensive cooperative effort and our shared goal to ensure the safe and uneventful transport of transuranic materials and waste.

1/20.01 The Environmental Impact Statement (EIS) appears to have neglected the fundamental purpose of the EIS process which is to identify and examine potential impacts and reasonable actions that may mitigate potential future environmental impacts. Under the Proposed Action the transportation of waste, including hazardous and radioactive, is expected to increase from 88 shipments per year (2002) to 310 shipments per year and the annual number of radioactive, chemical and explosives shipments is expected to increase from 470 to 600 annual shipments. In addition, the Proposed Action will result in a significant increase in the amount of plutonium inventory at LLNL, including an increase from 20 to 60 kilograms of fuel-grade equivalent plutonium in the Plutonium Facility and an increase from the proposed goal of 200 kilograms in 1992 to 1,500 kilograms in 2004 in the Superblock.

2/33.01 Our concerns relate to the safe storage and transport of these materials and the potential risk of an accident or terrorist attack at LLNL or upon shipments to or from LLNL. There currently is no means of disposing the plutonium at LLNL. In recent years, negotiations between DOE and the State of South Carolina failed to reach an agreement for LLNL to transport the excess plutonium offsite to DOE's Savannah River Site. The EIS should adequately address the fundamental issues related to radioactive

California Energy Commission, Robert L. Therkelsen, Executive Director
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and hazardous waste volume reduction onsite and the safe transport of radioactive materials/waste to and from LLNL. In general, the draft EIS lacks sufficient information on radioactive shipments to and from LLNL to make informed decisions about their safety. 3/20.01

The EIS should provide more complete information on the numbers and types of highway route-controlled quantity shipments to and from LLNL, including the maximum allowable quantities shipped for each type of material, packaging used, shipment modes and routes, and route-specific data including recent population and truck accident data for shipments along the proposed routes. The EIS should also provide information on the adequacy of emergency response preparation along the planned routes in California for these shipments and capabilities for responding to a major accident or terrorist attack against these shipments. 4/29.01

Our specific comments are attached (Attachment 1).

Sincerely,

Robert L. Therkelsen
Executive Director

California Energy Commission, Robert L. Therkelsen, Executive Director
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Attachment 1

COMMENTS ON THE DRAFT SITE-WIDE ENVIRONMENTAL IMPACT STATEMENT FOR CONTINUED OPERATION OF LAWRENCE LIVERMORE NATIONAL LABORATOY AND SUPPLEMENTAL STOCKPILE STEWARDSHIP MANAGEMENT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (DOE/EIS-0348 and DOE/EIS-0236-S3)

Increase in Plutonium Inventory

The Proposed Action will result in a significant increase in the amount of plutonium inventory at LLNL. Page S-14 states that the primary goal of LLNL in the 1992 LLNL EIS/EIR was to reduce the plutonium inventory to 200 kilograms through offsite disposition of significant portions of the inventory. This goal was partially achieved by transporting about half of the excess material offsite. However, DOE facilities were unable to accept all materials to be shipped and in 1999 DOE examined a supplemental EIS for future program requirements at LLNL. The 1999 supplemental analysis stated a need to increase the administrative limit of 700 kilograms to support the Stockpile Stewardship Program. Now DOE's National Nuclear Security Administration (NNSA) is proposing to increase the administrative limit for fuel-grade-equivalent plutonium at the Superblock to 1,500 kilograms from the existing 700 kilograms. There is concern that DOE has no foreseeable options for reducing the amount of plutonium stored at LLNL and that the environment and surrounding population is at considerable risk from accidents or a terrorist act. 5/33.01

(Executive Summary, p-S-14): The Executive Summary states that DOE "continues to work on a solution for disposal of plutonium, but no "pathway for LLNL to dispose of excess plutonium currently exists..." (p. S-15). Therefore, DOE is proposing to increase the administrative limit for plutonium at LLNL. DOE's plans for the ultimate disposition of these materials should be provided in the EIS.

The EIS states that the material is stored in robust vaults and no accident scenario is considered "reasonably foreseeable" and that terrorist acts are considered in classified documents. However, these comments provide insufficient information on the risks posed by the increase in plutonium inventory or the possible consequences from an accident or terrorist attack involving these materials. The EIS should provide a bounding analysis of these potential impacts and evaluate the adequacy of emergency response to plausible events. 6/25.06, 30.01, 33.01, 29.01

Under the Proposed Action, the number of hazardous and radioactive waste shipments in and out of LLNL would increase to over 310 in the next decade over the current projected 88 shipments. The number of annual shipments of radioactive, chemical and explosives shipments would increase from 470 to 600 per year. 7/22.01

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Transportation Impacts

7/22.01 cont. (P. S-12): In order to remove TRU waste from LLNL, DOE plans to ship "more than 1,000 drums of transuranic and mixed waste to the WIPP", beginning in FY 2004. It is not clear what "more than 1000 drums" means and does not adequately bound the number of projected shipments; The EIS should provide a more precise estimate of the number of drums planned for shipment to WIPP over the next 20 years.

8/20.05 (P. 3-11): The EIS states that NNSA is proposing to develop the capability to load transuranic waste into pipe overpacks in the Superblock, beginning in FY 2005. These pipe overpacks would allow for significantly higher actinide loading into each drum for disposal at the Waste Isolation Pilot Plant (WIPP) in New Mexico and would allow up to 80 plutonium-equivalent curies per drum and up to 200 fissile-gram equivalents. The EIS further states that the pipe overpack provides a way for LLNL to dispose of waste, such as plutonium and high americium levels, and that the pipe overpack could be loading into TRUPACT-II shipping containers and shipped to WIPP.

9/22.01, 30.01 Maximizing the amount of plutonium in these shipments would increase the number of highway route-controlled quantity (HRCQ) shipments of transuranic waste from LLNL to WIPP. The EIS should provide an estimate of the number of HRCQ shipments projected from LLNL to WIPP. The EIS should also analyze the risk from an accident or terrorist attack resulting in a breach of the container involving one of these maximally loaded shipments (i.e, loaded with transuranic waste at the WIPP waste acceptance

4/29.01 cont. criteria) in heavily populated areas in California. It should be noted that these shipments cannot begin in FY 2005, as planned, unless emergency response preparation along the proposed HRCQ shipments routes in California has been completed.

4

TOTAL P.05

California Regional Water Quality Control Board, Central Valley Region, Susan Timm, Site 300 Remedial Project Manager
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California Regional Water Quality Control Board
Central Valley Region
Robert Schneider, Chair

Terry Tamminen
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

Sacramento Main Office
Internet Address: http://www.swrcb.ca.gov/rwqcb5
11020 Sun Center Drive #200 Rancho Cordova, CA 95670-6114
Phone (916) 464-3291

8 June 2004

Mr. Tom Grim
DOE, NNSA, L-293
7000 East Avenue
Livermore, CA 94550

DRAFT SITE-WIDE ENVIRONMENTAL IMPACT STATEMENT FOR CONTINUED OPERATION OF LAWRENCE LIVERMORE NATIONAL LABORATORY AND SUPPLEMENTAL STOCK PILE STEWARDSHIP AND MANAGEMENT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Regional Board staff thank the U.S. Department of Energy (DOE) for agreeing to accept comments on the February 2004 *Draft Site-Wide Environmental Impact Statement For Continued Operation Of Lawrence Livermore National Laboratory And Supplemental Stock Pile Stewardship And Management Programmatic Environmental Impact Statement* within the two weeks following the due date of 27 May 2004. We have the following comments with respect to operations at Lawrence Livermore National Laboratory Experimental Test Site (Site 300):

1/17.01, 17.02 1. Section 3.4.7. states that tritium emissions to the air from hydroshots at Site 300 would result in 150 curies under the Reduced Operation Alternative or 200 curies per year under the No Action Alternative. DOE does not state if, under the Proposed Action Alternative, the quantity of tritium used in hydroshots will change. At present there is a very large tritium plume in groundwater from releases from the firing table at Building 850 and from the Pit 7 Complex. Please clarify the frequency of releases, the quantity of tritium per shot, the amount of tritium estimated to remain airborne versus the amount that will potentially fallout and pollute the soil and groundwater. DOE needs to discuss mitigation measures to prevent or minimize additional soil and groundwater pollution.

2/22.03 2. The Regional Board has issued Waste Discharge Requirements to DOE and Site 300 for discharge of domestic and industrial waste. With the construction of new buildings for processing energetic materials and conducting experiments, DOE and Site 300 will need to submit, prior to beginning operations in the new facilities, a Report of Waste Discharge requesting the Regional Board to revise the existing permits or prepare new permits for industrial and domestic waste disposal.

3/22.06 3. DOE needs to explain how it will discharge waste from the new Energetic Materials Processing Center and the High Explosives Development Center. DOE is planning either to repair the Class II Surface Impoundments or close them. DOE needs to include information regarding disposition of waste, waste composition, quantity of waste, the method of transporting the waste to its discharge location, and spill prevention plans. Contingency plans for soil and groundwater cleanup in case of a spill also need to be discussed.

California Environmental Protection Agency

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California Regional Water Quality Control Board, Central Valley Region, Susan Timm, Site 300 Remedial Project Manager
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Mr. Tom Grim 2 8 June 2004
National Nuclear Security Administration
U.S Department of Energy

4/28.01 4. DOE will need to revise its storm water pollution prevention plan to include the new locations of operations.

5/16.02 5. DOE proposes replacing the wetlands created by cooling tower runoff from Building 865 with wetlands at other locations. At least one of the proposed locations has tritium in the surface water. DOE needs to present an ecological risk assessment to determine if the surface water in the new wetlands will cause ecological impacts.

6/17.06 6. Please discuss what other potential soil and groundwater pollutants could be by-products of the outdoor firing table shots and what disposal methods will be used for the firing table debris and gravel.

If you have any questions, you may contact me at (916) 464-4657.

SUSAN TIMM
Site 300 Remedial Project Manager

California Regional Water Quality Control Board, San Francisco Bay Region, Naomi Feger, Remedial Project Manager
Page 1 of 2

California Regional Water Quality Control Board
San Francisco Bay Region

Terry Tamminen
Secretary for Environmental Protection

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Arnold Schwarzenegger
Governor

Date: June 10, 2004
2199.9026 (NLF)

Mr. Tom Grim
DOE, NNSA, L-293
7000 East Avenue
Livermore, CA 94550

Via email, unsigned and by fax

Subject: Comments on Draft Site-Wide Environmental Impact Statement for Continued Operation of Lawrence Livermore National Laboratory and Supplemental Stockpile Stewardship and Management Programmatic Environmental Impact Statement, February 2004.

Dear Mr. Grim,

Thank you for agreeing to accept comments on the Draft Site-Wide Environmental Impact Statement for Continued Operation of Lawrence Livermore National Laboratory and Supplemental Stockpile Stewardship and Management Programmatic Environmental Impact Statement (SWEIS) within two weeks following the closure of the Public Comment period on May 27, 2004.

The SWEIS states that the major decision to be made by DOE/NNSA is to select one of the alternatives for continued operation of the Lawrence Livermore National Laboratory (LLNL). As part of the Proposed Action, DOE/NNSA is considering using additional materials including plutonium, highly-enriched uranium and lithium hydride on the National Ignition Facility (NIF) and increasing the Tritium Facility material-at-risk. We have the following comments with respect to operations at LLNL Main Site.

1/18.02
1. Section 5.3.9.2, Re Impact Analysis on the Livermore Site Surface Water: The SWEIS does not address the impact of additional radiological emissions on surface water quality. Please include a discussion in the SWEIS of these potential impacts.
2. Section 5.3.9.2, Re Impact Analysis on the Livermore Site Groundwater: There is no discussion on the potential impact on groundwater of using additional materials in the NIF. Please provide a discussion of the likelihood of a release of radioactive nuclides to the groundwater and the likelihood of the existing groundwater monitoring network to

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California Regional Water Quality Control Board, San Francisco Bay Region, Naomi Feger, Remedial Project Manager
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Mr. Tom Grim - 2 -

detect a potential release. Compliance with underground storage tank regulations does not necessarily mean that no impacts to groundwater can be expected.

1/18.02 cont.

3. Section 5.3.1.5 et seq. states that no adverse impacts due to site operations are expected and that continued improvement of water quality and source reduction would occur. Please explain why the release potential to groundwater/surface water from increased use of radioactive and other hazardous materials is not expected to be impacted by the proposed project. For example, historic reductions in tritium usage are directly related to decreases measured in the environment. The opposite should also be true, increased operations should result in the potential for increased releases to surface water and possibly to groundwater.

If you have any questions regarding this letter, please contact me at (510) 622-2328 or by email at nlf@rb2.swrcb.ca.gov.

Sincerely,

Naomi Feger
Remedial Project Manager

Preserving, enhancing, and restoring the San Francisco Bay Area's waters for over 50 years

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Campaign Letter 1
Page 1 of 3

patricia Acosta
135 Clipper St., #10
San francisco, CA 94114

May 18, 2004

Mr. Tom Grim
DOE, NNSA L-293
7000 East Ave.
Livermore, CA 94550

Dear Mr. Grim:

Please consider this letter with my comments on the environmental and proliferation risks from proposed nuclear weapons development and new plutonium and tritium programs at the U.S. Department of Energy's (DOE) Lawrence Livermore National Laboratory (LLNL).

1/02.01 I write to you because the DOE has prepared a draft Site Wide Environmental Impact Statement (SWEIS) that proposes to ramp up nuclear weapons activities at the Livermore Lab in Northern California. Livermore Lab is working on the design of a new, high-yield nuclear bunker-buster, called the "Robust Nuclear Earth Penetrator," and I oppose its development. Additionally, I oppose the development of so-called "mini-nukes" and other new nuclear weapons concepts being researched at Livermore Lab.

Here are my comments on six dangerous new programs being proposed at Livermore Lab.

2/08.02 1. Storage of More Nuclear Materials: This plan will more than double the storage limit for plutonium at Livermore Lab from 1,540 pounds to 3,300 pounds. It would increase the radioactive tritium storage limit from 30 grams to 35 grams. I join California Peace Action and the Livermore-based Tri-Valley CAREs group in calling on DOE to de-inventory the plutonium and tritium stocks at Livermore Lab, not increase them.

3/27.01, 33.01 2. Plutonium Atomic Vapor Laser Isotope Separation (AVLIS): This plan will revive a project that was canceled more than 10 years ago because it was dangerous and unnecessary. The project is Plutonium AVLIS. This is a scheme to heat and vaporize plutonium and then shoot multiple laser beams through the hot vapor to separate out plutonium isotopes. To do this,

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3/27.01, 33.01 cont. Livermore Lab plans to increase the amount of plutonium that can be used at one time in any one room from 44 pounds to 132 pounds - a 3-fold increase. I join California Peace Action and the Livermore-based Tri-Valley CAREs in calling for cancellation of this project.

4/26.01, 26.03 3. Dangerous New Experiments in the National Ignition Facility Mega-Laser: This plan will add plutonium, highly-enriched uranium and lithium hydride to experiments in the National Ignition Facility (NIF) mega-laser when it is completed at Livermore Lab. Using these materials in the NIF will increase its usefulness for nuclear weapons development. It will also make the NIF more hazardous to workers and the environment. I join California Peace Action and the Livermore-based Tri-Valley CAREs in calling for a close out of the NIF project and termination of plans to use plutonium and other new materials in it.

5/37.01 4. New Technologies for Producing Plutonium Bomb Cores: This plan makes Livermore Lab the place to test new manufacturing technologies for producing plutonium pits for nuclear weapons. A pit is the softball-sized piece of plutonium that sits inside a modern nuclear weapon and triggers its thermonuclear explosion. DOE says these new technologies will then be used in a new bomb core factory, called the Modern Pit Facility (MPF). The Livermore Lab plutonium pit program will enable the MPF and production of 150 - 450 plutonium bomb cores annually, with the ability to run double shifts and produce 900 per year. This production capability would approximate the combined nuclear arsenals of France and China - each year. I join California Peace Action and the Livermore-based Tri-Valley CAREs in calling for termination of this technology development project.

6/39.01 5. Enhancing Readiness to Resume Full-Scale Nuclear Tests: This plan calls for Livermore Lab to develop diagnostics to "enhance" the nation's readiness to conduct full-scale underground nuclear tests at the Nevada Test Site. This is a dangerous step back to the days of unrestrained nuclear testing and I join with California Peace Action and Tri-Valley CAREs to oppose any move to "enhance" U.S. readiness to conduct full-scale tests.

7/35.01 6. Mixing Bugs and Bombs: This plan mixes bugs and bombs at Livermore Lab. It calls for collocating an advanced bio-warfare agent research facility with nuclear weapons activities in a classified area at Livermore Lab. The DOE proposes genetic modification and aerosolization (spraying) with live anthrax, plague and other deadly pathogens on site at LLNL. This could weaken the international biological weapons treaty -- and it poses a risk to workers, the public and the environment here in the California. Interestingly, this program is listed as part of LLNL's "no action alternative" as though it were an existing program -- even though it is not yet constructed, Tri-Valley CAREs has brought litigation against it,

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7/35.01 cont. and a federal Judge has issued a "stay" prohibiting the importation of dangerous pathogens into the facility while the lawsuit moves forward. I join Tri-Valley CAREs in opposing the operation of a bio-warfare agent facility at Livermore Lab.

8/04.01 I believe the DOE plan to introduce new weapons programs into LLNL will promote a new arms race and escalate the nuclear danger. Further, the DOE proposal to double LLNL's plutonium storage limit to 3,300 pounds and triple the amount held "at risk" in any one room increases the environmental threat LLNL poses to the people of California. The SWEIS propels Livermore Lab in exactly the wrong direction.

9/07.01 Instead of proposing new weapons projects, DOE should enhance the peaceful, civilian scientific capabilities and mission at Livermore Lab by proposing new, unclassified programs in environmental cleanup, non-polluting and renewable energy, earth sciences, astrophysics, atmospheric physics and others. The alternative of a "green lab" in Livermore should be pursued instead of the dangerous nuclear weapons future proposed by the Site Wide Environmental Impact Statement.

Sincerely,

Patricia Acosta